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Exploring Nurse Stress

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Exploring Nurse Stress

by

Andrea Butler

A thesis submitted to the faculty of
Gardner-Webb University Hunt School of Nursing
in partial fulfillment of the requirements for the
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Abstract

Aims: To explore levels of stress among nurses working in medical-surgical, telemetry and medical-telemetry nursing departments.

Background: Bedside nurses are continuously confronted with stressful situations. These stressors can be very unpredictable and varying in intensity. As the nurse will face many different stressors, it is important for leadership to recognize the origin of the stress in order to do everything possible to promote positive outcomes. Conquering stress within nursing departments provides a benefit for the greater good.

Methods: This study used a descriptive, correlational study design. The association of occupational job stress for a nurse working within medical-surgical, telemetry, and medical-telemetry nursing departments were examined. This research study took place in a 450 bed non-profit acute care facility located in the southeast United States. This research study focused on the following units: medical- surgical, telemetry, and medical-telemetry nursing departments. Participants were asked to complete the Nurse Stress Index (NSI) to assess levels of stress collectively and within each nursing department.

Conclusion: Although there was moderate to extreme levels of stress within several of the questions on the survey, there were no significant levels of stress noted overall. The areas where stress was noted were within the modalities of time, priorities, difficult patients, and dealing with relatives. In addition, levels of stress did not vary from department to department.

Keywords: Occupational Stress, Nurse Stress, Nursing Stress Index

Acknowledgments

Thank you God for momentum and open doors. Thank you to all of the hardworking medical-surgical, telemetry, and medical-telemetry nurses IN Spartanburg Medical Center.

To God Be the Glory!

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CHAPTER I

INTRODUCTION

The nursing profession has continued to evolve into an ever changing complex system. Now more than ever, the American healthcare system is dependent on the offerings of the nursing profession. Physicians, healthcare administrators, and other allied health professions all play a vital role in the care of the patient in acute care organizations. However, the role of the nurse is essential. Because of this dynamic, the nursing profession can be extremely stressful. On many occasions, stress is thought to be the single most current variable that force nurses out of the profession (Mosdeghrad, 2013). The task and duties required of nurses call for composure in challenging situations. The follow-through of these tasks will need to be carried out while keeping patient safety at the forefront. If the nurse is overly stressed, the patient can be at risk of a decrease in progression and a negative hospital experience. Both of these variables will foster negative outcomes by all stakeholders involved (nurse, patient, healthcare organization, and more).

Stress is defined as “a state of mental or emotional strain or tension resulting from adverse or very demanding circumstances” (“Stress”, n.d., para 2). Although this definition seems simple, the phenomenon of stress is not as simple. Stress is not always good or bad. However, it is a physical response (The Stress Management Society, 2015). In fact, occupational stress is thought to be a major contributing factor in relation to health illnesses. This type of stress promotes physical hazards that can lead to substance abuse and family problems. Occupational stress can be different from other types of stress in the aspect of control. In an overview regarding occupational stress and control,

Spector (2002) specified why control over the simple things will reduce stress.

Occupational control can enhance motivation and growth; thus reducing stress. As employees are allowed to perform autonomously, positive effects with individual health, morale, and the ability to handle a workload are transpired (Spector, 2002). For this reason, many businesses have taken the necessary steps to increase self-governance in the work place. However, in the business of healthcare, this task is not simple. There are multiple variables to consider which are not always apparent. In addition, there are many behind the scene challenges making it difficult to remain 100% equipped and prepared for all possible challenges.

The human body contains an extreme mechanism which stems from the body's autonomic nervous system to adjust to stress. This system is known as the "fight or flight" syndrome. With this system, the human body is quickly prepared to fight or flee. As the human is attacked with a demanding situation, the body emerges into this mode by increasing in heart rate, blood pressure, and tensing of muscles. Hormones are secreted to prepare the body to combat the situation. This instantaneous transformation is the body's way of helping the person to cope with the stress. However, the automatic alert is useful only in short-term situations. Remaining in the stress response for an extended period of time will cause long-term health illnesses and more. This detail alone gives high importance to the health hazards of remaining stressed (The Stress Management Society, 2015).

Significance

Bedside nurses are continuously confronted with stressful situations. These stressors can be very unpredictable and varying in intensity. However, the level of the

stress will be apparent based on the perception of each individual nurse. Thus, situations considered stressful to one nurse may not be considered as stressful to another.

Variations of perceived stressful situations will always make room for individual adjustment to the stressors. Adjustments to stressors is expected amongst new nurses at the bedside; and, is typically handled through the orientation process and as work relationships are built. However, there are many other stressors based on work settings and other healthcare situations. Some of the stressors of a bedside nurse include: a chaotic work environment; increasing demands; insufficient resources; lack of confidence with new situations; security issues; and hostility from physicians, coworkers, patients and family.

As time has progressed, increased patient acuity levels are apparent in acute care settings. Patients seem much sicker than years prior. Perhaps, it is the economic crisis that causes patients to delay assistance with acute health needs until it is far past an urgent state. Or possibly, it is the alternative lifestyles carried out by patients that are causing such a downward spin on the health status of patients today. Nonetheless, patient acuities in nursing departments are perceived to be greater than year's prior. Patients with higher acuities are not always placed in critical care areas; many are now housed in nursing departments where nurses are overseeing several patients. This new norm alone is a stressor especially if the manpower is not increased in response to the increase in patient load and/or patient acuity.

A nurse is only as good as the resources around him/her. These resources can consist of equipment needed to perform tasks, expertise from senior nursing staff, and the appropriate amount of staff to effectively carry out the duties. However, with the

variations in patient's needs, lack of resources in regards to supply may be an issue.

More importantly, manpower resources and expertise is an even higher concern. A study lead by Dr. Linda Aiken revealed what nurse professionals have felt for years regarding the effects of nurse to patient ratio. The study was one of the largest international studies which covered 30 countries within four continents. This study revealed two important details: "every patient added to a nurse's workload was associated with a 7% increase in hospital deaths following common surgical procedures and every 10% increase in university educated nurses is associated with 7% lower mortality" (Aiken et al., 2014, p. 1872). Although the Institute of Medicine (IOM) has made radical declarations in reference to these findings, arguments continue to remain in respects to why hospital and government officials continue to allow budgetary dilemmas to overrule these findings (Nickitas, 2014).

Even the strongest nurse will need assistance on occasion. Having merely more than one patient can be taxing when multiple needs arise at once. Depending on the needs of one patient, a nurse can be contained for an extended amount of time with each patient. Additionally, a suitable ratio of experienced nurses to novice nurses is a vital component to minimize the stressors for bedside nurses. Experienced nurses are essential to supporting novice nurses to become acclimated to the new work environment and department protocols. Although nursing schools are strategic in the objective to educate the student nurses, true confidence does not take root until experience has been obtained. Until that time, the direction and assistance of an experienced nurse is necessary for collaboration and validation of the care to be carried out. For a novice nurse, this type of nurturing is comforting and beneficial for the reduction of stress. On the contrary,

experienced nurses may experience increased stress through continued dependency required from novice nurses.

Nursing is fast paced and demanding. Being a nurse requires an ability to facilitate multiple detailed situations toward a positive progression of health. In order to accomplish this progression, there must be constant collaboration with several healthcare professionals. In the care delivery process, the physician is the lead. The physician is to assess, diagnose, and treat the cause. The physician's role is very broad and leaves much of the work to be carried out by another role; typically, the nurse. The role of the physician is not easy; nonetheless, the intricate details to follow-through on the physician's orders may be even more complex. Collaborating and communicating between physicians and nurses can be complex as multiple pleas may be required to obtain what is needed to care for patients. Many times, the nurse is the in-between person forced to pass messages from physician to consulting physician and to other allied health professionals. Nevertheless, as the patient's needs require attention, collaborating, and communicating with the physician must move forward despite the added stress.

Although the role of the nurse functions as the second in command for the patient, the role demands a comprehensive knowledge for normal human physiology, disease processes, treatment of disease, suspected adverse reactions of treatment regimens, and expected outcomes. The ability to connect the dots of all evidence from each patient's case is important to the patient's well-being. The nurse is expected to establish a complete knowledge base of the patient's current health status in order to monitor, report, and respond to the changes as noted. This perspective of the nurse's role is very complex and calls for extreme focus and composure. The follow-through of nursing task varies in

complexity and time. As the number of patients increase along with increased acuity, the capacity of the nursing role to deliver quality care may be compromised. Therefore, with the overall objective of the nurse clearly acknowledged, reducing the stressors for the bedside nurse is very important.

“When nurse staffing is inadequate, the ability to practice ethically is questionable” (Martin, 2015, p. 4). Nurses practice within a code of ethics that mandates all actions to benefit the patient. Insufficient staffing can make it difficult to ensure everything necessary to promote the health; this type of predicament will prove stressful to any nurse. As the nurse becomes stressed, work performance may be compromised. The normal ability to follow-through with patient safety protocols such as medication administration regimens can be overlooked due the lack of focus. Typically, when this occurs, the nurse is attempting to rush to get to the next task. One missed step could cause a patient to receive the wrong medication. Simple mistakes of this nature can trigger many negative outcomes for the patient such as: increased mortality risk, patient falls, increased length of stay in the hospital, and a negative patient experience. In addition, there may be negative outcomes for the nurse such as: reprimand due to lack in work performance; a reduction in trust from physicians, patients and family; coworker conflict and a decline in self-confidence for the nurse.

Some nurses will learn to conquer the stressors. In fact, senior nurses are thought to endure less stress from the job due to familiarity and complacency. The stressors do not suddenly disappear; but immunity to the stressors typically emerges creating a passive mode of operation. For example, alarm fatigue from hearing the alarms constantly. Alarms are meant to alert the clinician of some type of malfunction or

deviation from the standard. With a complacent nurse, instead of stopping to analyze the problem, the nurse moves forward with the task at hand ignoring the alert. This will assist the nurse to migrate through the work to be accomplished; again, this can lead to negative patient outcome and negative patient experience. On the contrary, the prudent nurse operating with the appropriate focus and diligence with organizational best practices will provide the best outcome for the patient. Therefore, it is essential to minimize as many stressors as possible to facilitate a work environment safe for patient care.

Purpose

A patient's health status varies depending on the level of care provided within a nursing department. Some nursing departments contain patients of similar disease processes or age populations. For example, a trauma step down unit may house patients with simple trauma like ailments. These illnesses may range from very simple lacerations to extremely complex conditions. In addition, some nursing departments have the ability to monitor heart rhythms through telemetry monitoring which may require the ability to administer certain treatment regimens; while other departments house patients with complex or minor nursing task as related to the department's patient population. Overall, each nursing department generally has an individual population that requires specialized training in order to carry out the care. The typical number of patients assigned to each nursing differs based on the type of nursing department. The nurse-to-patient ratio is commonly chosen based on a national benchmark in reference to the patient population.

As the nurse will face many different stressors, it is important for leadership to recognize the origin of the stress in order to do everything possible to promote positive outcomes. Conquering stress within nursing departments provides a benefit for the greater good. Some of these benefits include: improving health of the caregiver, increase job satisfaction for the nurse, a reduction of nurse turnover rates, and increase patient outcomes. These improvements will trigger a savings in overall healthcare cost.

The purpose of this research study was to explore levels of stress amongst nurses working on medical-surgical, telemetry, and medical-telemetry nursing departments. An assessment of each participant's nursing department will be evaluated. Careful analysis took place to evaluate if a significant correlation of stress exist among the all of the nurses exist; then a second analysis to view if the levels of stress differ among each nursing department.

Conceptual Framework

The conceptual framework for this research study was the Transactional Model of Stress and Coping by Lazarus and Folkman which originated in 1984. Lazarus formulated the original theory on stress in 1966. Later, Lazarus and Folkman united to expand on the idea. This original theory defined stressors as transactions between the environment and the person. In other words, the stress is not the actual event but rather the coping factors generated from the event. "As such, stress encompasses a set of cognitive, affective, and coping factors" (Lyon, 2012, p. 8). Needless to say, as the two theorists collaborated to further expand the original framework which alluded to the ideas of coping and stress emotions. This model is known as the Cognitive Appraisal in which two factors are the catalyst for producing stress. The two factors are the production of

stress and the individual response to the stressor. Coping was defined as the continuous change in thought and behaviors to achieve specific burdens that are considered as taxing or exceeding the resources (Lyon, 2012). This definition alone directly correlates with the main stressors of a nurse.

To further explain the Transactional Theory of Stress and Coping, it is described in three stages. The first stage is the primary appraisal stage in which the person evaluates whether or not the event is stressful. This is determined based on the balance of resources and demand. If the resources are not balanced with the demand, this will lead to the second stage which is the secondary appraisal. This is that moment when the situation is perceived as a threat and appropriate coping mechanisms are released. The last stage is the reappraisal stage. The reappraisal stage starts the repeated feelings to evaluate, change, and re-label the measures of the first and second stages. It is within this phase where one could grow and transform thinking over time possibly changing the perception of what was truly stressful and what was not. The emotions presented with this framework include but are not limited to anxiety, fear, anger, guilt, and sadness (Lyon, 2012).

Research Question or Hypothesis

This study aimed to answer the following research questions:

1. What is the occupational stress level of nurses working in medical-surgical, telemetry and medical-telemetry nursing departments?
2. How does the occupational stress level of nurses working in different medical-surgical, telemetry, and medical-telemetry nursing departments compare?

Summary

As there continues to be a need to hospitalize the sick, the role of the nurse will continue to be extremely important. Today's nurse is faced with a great amount of stress stemming from multiple factors. As a nurse is exposed to this type of stress on a continuum, the body's helpful mechanism becomes the enemy. Although many publications reveal the connection with quality outcomes and nurse-to-patient ratios, the question remains: Is stress the superior villain with the reduction of nursing excellence?

CHAPTER II

LITERATURE REVIEW

The purpose of this study was to explore occupational stress in bedside nursing and the relationship of this stress with nurse-to-patient ratios. The profession of nursing is taxed with increasing demands and chaotic situations. All of this can have a negative effect on everyone involved. Two major effects of occupational stress can be increased nurse turnover and decrease patient outcomes. Although, stress is the main topic, a literature review was completed in search of topics and studies providing any established views on the subject of occupational nurse stress. In addition, other topics in relation to the main topic were reviewed such as patient outcomes and nurse turnover.

A literature review was conducted by searching a variety of search engines and databases. These databases included Cumulative Index of Nursing and Allied Health Literature (CINAHL), Google, Medscape, and Medline. Keywords used in the search included occupational stress, nurse burnout, nurse-to-patient ratio, and nurse staffing.

Literature Related to Statement of Purpose

Occupational Stressors

Jenkins and Elliott (2004) conducted a study to compare the following three components: levels of stress, relationships between stressors and burnout, and impact of social support. A convenience sample of 93 nursing staff from 11 different acute mental health wards participated in the study. The two groups analyzed were qualified nursing staff (nurses) and unqualified nursing staff (nurse assistants). The purpose of including the nurse assistant was because of the perceived vulnerability of this role being consistently face-to-face with the mental health patients; thus, increasing the chance of

burnout from the stress. Participants were asked to complete the Mental Health Professionals Stress Scale, Maslach Burnout Inventory, and the House and Wells Social Support Scale. The conclusion of this study revealed, qualified and unqualified staff differed in terms of prominence given to individual stressors in their work environment. The findings were consistent with the notion of burnout developing in response to job-related stressors. “The main stressor cited by qualified staff was a lack of adequate staffing. Both groups experienced a large amount of emotional exhaustion. The reduction of workload stress was the recommendation for action based on the study” (Jenkins & Elliott, 2004, p. 627).

Violence amongst psychiatric patients is an everyday occurrence in mental healthcare setting. Medical-surgical nursing is exposed to violence as well; however, the frequency is lower and is usually unexpected. Lauvrud, Nonstad, and Palmstierna (2009) conducted a research study focusing on the occurrence of post-traumatic stress disorder and the relationship of professional quality of life. This study was conducted in 2006 in a secure mental unit is Broset which serves central and northern Norway. The groups of patients housed in this mental facility were diagnosed with various mental illnesses or with severe learning disorders and demonstrating violent behaviors. Nearly 100 questionnaires regarding post-traumatic stress were administered to nursing staff that corresponded with a five patients to one nurse assignment. Findings from this study revealed the following: nursing staff working in a high frequency violence psychiatric institution demonstrated a low prevalence of post-traumatic stress symptoms in spite of high exposure to violence. A substantial number of respondents had some symptoms but only few even met criteria for partial post-traumatic stress disorder.

Borhani, Abbaszadeh, Nakhaee, and Roshanzadeh (2014) conducted a cross sectional study on the relationships between moral distress, professional stress, and intent to stay in the nursing profession. Observations were made regarding the high incidence of moral distress within nursing. Moral distress can entail numerous emotions in relation to situations with patients as well as organizational dilemmas. In addition, notations were made in review of studies in connection indicating that stress is a common phenomenon in the nursing profession. Two hundred and twenty nurses from two teaching hospitals in Iran served as participants in this study. Participants were asked to complete a 52-item questionnaire based on Corley's Moral Distress Scale, Wolfgang's Health Professions Stress Inventory, and Nedds Questionnaire on Intent to Stay in the Profession. The results of the study revealed that medium levels of moral distress and professional stress in nurses do not foster intent to leave the profession. Conversely, a significant correlation between moral distress and professional stress was noted.

Galdikiene, Asikainen and Balciunas (2013) conducted a study "describing experiences of stress in primary healthcare settings. This study examined correlations between stress and personal factors. The method of the study used was a descriptive research design. Participants included 180 nurses from 18 primary care facilities in Lithuania. Participants were asked to complete the Expanded Nursing Stress Scale (ENSS). The factors studied were the following: death and dying; conflict with physicians, patients, and families; discrimination; and problems with peers. However, the more stressful situations were thought to be death and dying; conflict with physicians and dealing with patient and families. Findings for this study revealed stress to be more prevalent among nurses working in primary care healthcare centers and related to

external macro factors. Data analysis demonstrated a low mean measurement of stress for all factors studied. This study also concluded that education in stress management and the knowledge of control and support of the work environment would be beneficial.

Gelsema, Doef, Janssen, Akerboom, and Verhoeven (2006) conducted a longitudinal study regarding job stress for the nursing profession by exploring the causes and consequences of stress. Researchers used a complete panel design in which independent and dependent variables were measured over a three-year time frame with registered nursing working with an academic hospital in the Netherlands. Minimal worthwhile information was found in this study that relates to the current hypothesis. Some of the consequences of job stress were found to be variations in demands, control, and support. Job demands such as workload and meeting deadlines, involvement in life and death situation, and daily hassles were found to be longitudinally associated with emotional exhaustion.

Rushto, Schroeder, and Donohue (2015) set out to examine the variables in relation to nurse burnout. The variables explored were moral distress, general stress, resilience, meaning and hope. This experiment was a two-phase process in which exploration of the variables were conducted followed by a project design to enhance resilience. The method of the study was a cross sectional study referencing nurses working within high stress nursing departments. Participants included 114 nurses who were surveyed from four separate hospitals. Nursing departments such as pediatrics, oncology, and adult critical care were included. In addition, the departments included in the study were synchronized in reference to patient population, patient acuity, and other items such as staffing ratios/turnover rates. Several instruments of measurement were

needed to examine all potential variables perceived with affecting burnout. The following instruments were used: Maslach Burnout Inventory, Moral Distress Scale, Perceived Stress Scale, Resilience Scale, Meaning Scale and Stress Hope Scale. Several correlations were found from the data gathered in the study. However, as an overall finding, burnout was discovered to be “an important contributor to retaining trained nurses in their roles” (Rushto et al., 2015, p. 418). In short, the following observations were found: Nurses working within high stress areas exhibit higher scores for burnout; nurses with higher levels of spiritual well-being, hope, resilience, and meaning are protected against burnout. As an overall finding, there was a relationship among the five variables assessed (moral distress, general stress, resilience, meaning, and hope) in reference to burnout. Emotional exhaustion was found to be the greatest predictor for burnout. Surprisingly, years of experience in nursing did not fluctuate in resilience. As a phase two for this project, the goal is to “enhance resilience while improving retention and decreasing turnover.

Patient Ratios

A research study analyzing the association of nurse-to-patient ratio with mortality and preventable complications of patients undergoing aortic valve replacement (AVR) was conducted by Arkin, Lee, McDonald, and Hernandez-Boussard (2014). This study took place in 2014; however, the case studies reviewed were from 1998 to 2010. The aim of the study was to examine specific factors that may be associated with the development of post-surgical mortality and in-hospital complications. In addition, the study was designed to compare patient outcomes for AVR and explore the extent to which hospital characteristics explain variations in quality outcomes. The data source was a 20%

stratified sample of United States hospitals. Records identified contained evidence of an open AVR procedure from the dates specified. The overall results revealed patients undergoing AVR surgeries in hospitals with high levels of resources have improved patient outcomes. This finding was found to be true exclusively for mortality, and false for post-operative complications. The hospital was the better mortality rates clearly operated with lower nurse to patient ratios (Arkin et al., 2014).

A publication from the Nursing Standards Journal reviewed previous studies in relation to reducing the numbers of nursing staff. Nurses are viewed as the “core providers” within hospital settings; therefore, consuming greater than 50% of the budget in salaries. As the American healthcare system is operated based on budgetary principles, healthcare administrators are continuously faced with this quandary. In relation to patient outcomes, a study regarding nurse to patient ratios in an intensive care unit (ICU) was referenced. Conclusions were made in relation to patient outcomes, staff morale and legal consequences. For patient outcomes, length of stay in the ICU and mortality rates were decreased as the nurse to patient ratio was decreased (Garretson, 2004). On the contrary, increasing patients per nurse had a negative effect on these patient outcomes. Staff morale was the second factor affected with an increase in nurse to patient ratio. Consequently, risk of legal concerns tended to increase with higher nurse to patient ratios as well. In conclusion, bedside nurses are a worthy investment in healthcare. Risking patient outcomes alone is a significant enough reason to maintain adequate staffing levels.

Hinno, Partanen, and Vehviläinen-Julkunen (2011) engaged in a research study in relation to nursing duties and patient outcomes. This cross sectional study was based

on the perception of the nurse. The study took place in Europe with two countries, Finland and the Netherlands. The momentum for this study transpired with the IOM release regarding the role of the nurse in healthcare. At the time of this release, American hospitals were perceived to be in progress with making necessary changes to improve nurse staffing. However in Europe, operating at ideal staffing levels was not conceivable. The purpose of this study was to clarify the following: nurse-to-patient ratio patterns, nurse perception of time availability to perform duties, identify common adverse reaction, and to detect the correlation between staffing ratios and patient outcomes. The nurse activities assessed with this study were oral hygiene, activities of daily living, skin care, pain management, patient education, guiding for patients and family, talking to patients, general rehabilitation, updating of care plans, and discharge planning (Hinno et al., 2011). Nurses participating in the study were kept anonymous and given the National Nurse Staffing Measurement. This tool was tested for reliability and validity prior to the assessment. Findings of the study revealed a significant association between nurse staffing and adverse patient outcomes. Consequently, recommendations were given to improve nurse staffing.

A research study in Korea continued with the nurse staffing debacle. The aim of this study was to explore the relationship between nurse staffing and nurse related quality nursing care, job satisfaction, burnout, and intent to leave (Cho et al., 2009, p. 1730). This cross sectional study occurred between August and October of 2007 in which 22 hospitals in Korea were surveyed. The tool utilized was a questionnaire in two forms: one for management and the other for staff nurses. There were two objectives within the study which were to measure the number of patients assigned to the nurses and a

subjective measurement of the adequate staffing in relation to quality. The connections between nurse staffing, quality of care, and job outcomes were carefully examined due to the work data being a three-tiered structure. This multilevel dynamic created mutual work environments and experience for the nurses working within these areas. As an overall finding, nurse staffing was associated with nurse related quality of nursing care and nurse job outcomes. This result suggested the need for better staffing models to be established for intensive care unit (ICU) staffing in Korea. Due to the use of subjective and objective staffing measures, this study provides enhance indication regarding the relationships among nurse staffing, quality of care, and job outcomes. This study found that both staffing measures were related to nurse-rated quality of nursing care (Cho et al., 2009).

A research study in Finland attempted to find the connection with staffing ratios and patient satisfaction. The overall objective of this study was to improve quality. This study utilized a survey method analyzing over 4,000 patients hospitalized within 34 nursing departments from four separate university hospitals in Finland (Tervo-Heikkinen, Partanen, Aalto, & Vehvilainen, 2008). There were over 600 nurses assessed. The tools of measurement were the Human Caring Scale (HCS) which included 59 statements and nine background questions. Proper reliability and validity had previously been conducted; however, further steps were taken for reassurance. In relation to patient outcomes, the variables assessed the number of beds within each hospital/unit and the hospital bed census rates. Additionally, the following were assessed in relation to patient load and nurse staffing: nurse-to-patient ratio during the day and for the day in full, patient load per day, and patient load per nurse for the month. The overall results of the study revealed significant associations between the nursing indicators and patient satisfaction;

specifically, patient-to-nurse ratio, skill mix, patient load per RN, the number of nurse hours per patient load; and the number of years working within the unit (Tervo-Heikkinen et al., 2008, p. 64). Additionally, associations with satisfactory pain management and overall patient satisfaction were strong. In summary, adequate staffing levels is positively related to patient satisfaction which confirms quality care (Tervo-Heikkinen et al., 2008).

Literature Related to Theoretical Framework

No studies were identified that linked the Transactional Model of Stress and Coping to nurse occupational stressors or patient ratios.

Strengths, Weaknesses, and Gaps of Literature

Literature correlating nurse occupational stress to the nurse-to-patient ratio was minimal. On the contrary, information regarding nurse-to-patient ratio and patient outcomes was overwhelming. Information regarding the study of stress of a bedside nurse along with the causes was substantial. There were a variety of common reasons nurse stress such as work environment, lack of support, heavy workload, the lack of autonomy, supply verses demand imbalance, and difficulties meeting the needs of the patient. Rarely were any of the studies conducted in a medical surgical or telemetry area.

The subject of patient satisfaction appears to be a growing topic. Numerous publications regarding the subject in general were noted. However, obtaining studies connecting patient satisfaction and with nurse stress is nearly non-existent. On the contrary, there was a continuous literature proving the connections between patient outcomes and nurse-to-patient ratios. The literature tended to assess patient satisfaction in relation to the patient's perception. This provided the necessary benefaction to

proceed with the topic of patient satisfaction. Many of the studies contributed the details from which the patient's perception of satisfactory care is based. These findings further solidified the premises for this study.

Summary

Throughout the literature, findings show the benefits of a lower nurse to patient ratio (Garretson, 2004). Patient outcomes, mortality rates and staff satisfaction rates are all improved as there are more hands at the bedside (Arkin et al., 2014). Within nursing departments, the state of moral distress and professional stress is constant. Although providing support for nursing staff is helpful, greater efforts must be made to eliminate the stressors at the bedside. As these constraints remain intact, an increase in the intent to leave the nursing profession will continue to increase. In additions, the physical and emotional state of the nurse transfer over into patient outcomes which includes patient satisfaction.

CHAPTER III

METHODOLOGY

This chapter provides information related to the study design, setting and sample, data collection design, measurement methods, data collection procedures, protection of human services, and data analysis.

Study Design

This study used a descriptive, correlational study design. The association of occupational job stress for a nurse working within medical-surgical, telemetry, and medical-telemetry nursing departments were examined.

Setting and Sample

This research study took place in a 450 bed non-profit acute care facility located in the southeast United States. The facility is a level one-trauma center. This research study focused on the following units: medical- surgical, telemetry, and medical-telemetry nursing departments. All of these nursing departments are governed by the same administrative body and therefore utilize the same framework to deliver nursing care. Close analysis of each department confirmed the goal of a patient population size of no more than 10 patients in number from nursing unit to unit. To be precise, the number of patients per each nursing unit in this study ranged from 23 to 32 patients. This gave a minimum of a nine patient difference between the nursing departments.

The sample for this research study included registered nurses working in an open medical- surgical, telemetry, and medical-telemetry nursing departments. Participants must have met the following inclusion criteria: licensed registered nurse working at the bedside autonomously.

Measurement Methods

Participants were asked to complete the Nurse Stress Index (NSI) (Appendix A). The NSI has been recreated verbatim in SurveyMonkey to an electronic version. The only additional added questions were the identification of the nursing department and personal identifier.

The Nurse Stress Index (NSI) was used to measure the stress level of the nurses. The NSI consists of 30 questions based on a 5-point Likert Scale. The 30 items are divided into six subscales assessing five major sources of job stress. The NSI instructs the subject to rate each question by circling the number that corresponds to the amount of pressure felt from each question. The levels of pressure are as follows: 1-No pressure; 2-Very little pressure; 3-Moderate pressure; 4-High pressure; and 5-Extreme pressure. The tool is scored by totaling the score for each item. The higher the overall score, the higher the nurse's level of occupational stress. The validity and reliability of this tool has been found to have acceptable levels of internal reliability ($\alpha = 0.90$) and split-half reliability (coefficient = 0.89) (Harris, 1989). Permission to use the tool was received (Appendix B)

Data Collection Procedure

The researcher used each participant's work email address to distribute information. Participants received an email containing the Informed Consent (Appendix C) form and a link to SurveyMonkey that asked participants to identify their unit of practice and then listed the NSI questions. Participants were given one week to complete the survey.

Protection of Human Subjects

The study was conducted after receiving approval from the Institutional Review Boards at the University and the healthcare organization in which the study was conducted. This research study was deemed to have minimal risk for participants. Participants were provided with an informed consent form outlining the purpose, risks, and benefits of the study. The research study was anonymous and voluntary.

Data Analysis

Data was entered into the Statistical Package for Social Sciences. Descriptive statistics and t test were used to assist in data analysis. A p-value of 0.5 was used to test for significance of data.

CHAPTER IV

RESULTS

This chapter presents the data and interpretations of the study. The first section portrays the overall levels of stress amongst nurses working within medical-surgical, telemetry, and medical-telemetry nursing departments measured by Nurse Stress Index (NSI). The second section incorporates the reliability of the NSI. The third section reveals descriptive analyses for the NSI sub-scales. The fourth section presents the work characteristics of the participants, including nursing departments, and statistical analysis of data related to the NSI questions.

Sample Characteristics

A total of 83 nurses submitted online surveys related to this study. Seventy-four nurses submitted completed surveys that were incorporated into the data analysis. A majority of participants worked in the 5 Heart and 4 Heart units 14 each (18.9% each). The unit with the least representation in the study was 6 Pavilion, with only two respondents (2.7%). Unit representation is displayed in Table 1.

Table 1.

Work Characteristics of the Sample by Unit

Unit	Frequency	%
8 Tower	7	9.5
7 Tower	3	4.1
6 Tower	12	16.2
6 Pavilion	2	2.7
5 West	3	4.1
5 Heart	14	18.9
5 North	7	9.5
4 Tower	5	6.8
4 Heart	14	18.9
3 Tower	7	9.5

Major Findings

The NSI is divided into six subscales. These subscales are defined as:

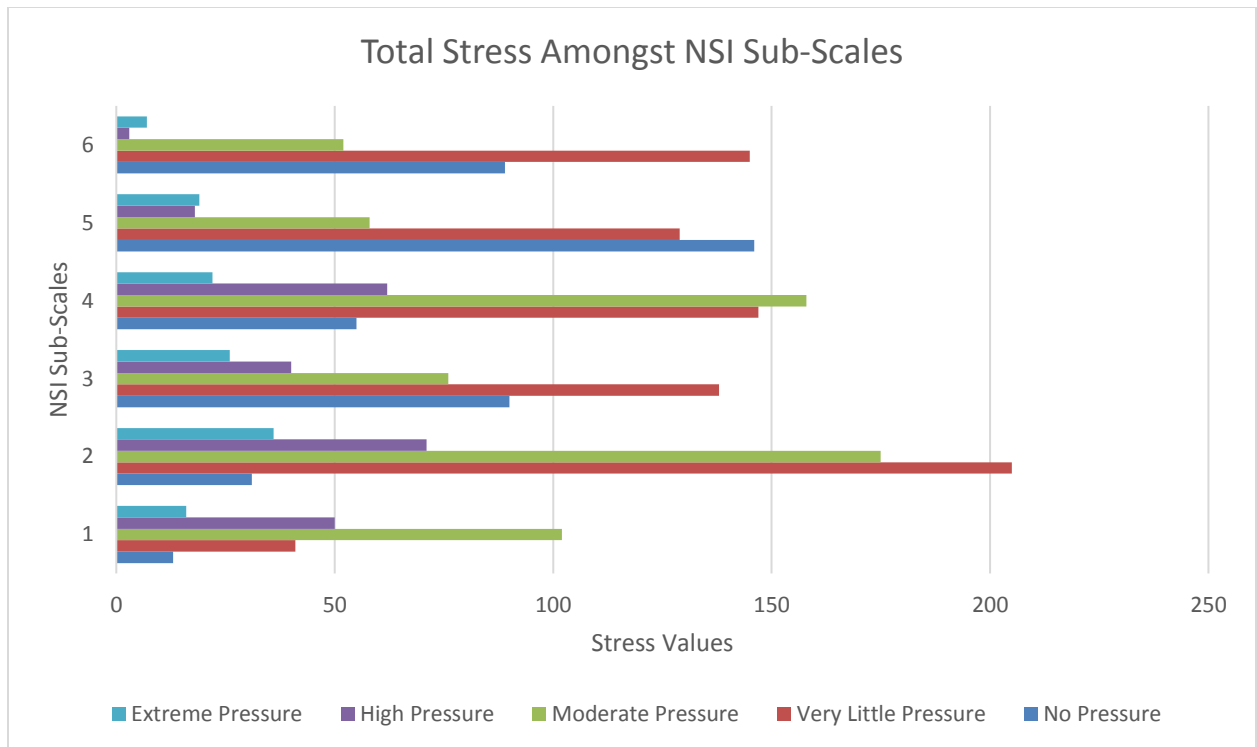
- Subscale 1: Managing Workload 1 - Workload pressures related to insufficient time
- Subscale 2: Managing Workload 2 - Workload pressures owing to resources and conflicting priorities
- Subscale 3: Organizational Support and Involvement – Changes and decision making; Support from senior staff; Feedback for unsatisfactory performance and relationship with supervisor
- Subscale 4: Dealing with Patients and Relatives – Dealing with aggressive people; Life and death situations; Difficult patients and relatives
- Subscale 5: Home and Work Conflict
- Subscale 6: Confidence and Competence in the Role

Out of the 2,220 responses, 991 resulted in moderate to extreme pressure. The most responses, 1,229, were ranging from no pressure to very little pressure. The NSI sub-scale with the greatest amount of stress was Workload 2, with 282 responses within the moderate to extreme pressure range. Frequency distribution of responses is displayed in Table 2 and Figure 1.

Table 2

Frequency of Responses on NSI by Nurses from All Departments

NSI Subscale	No Pressure	Very Little Pressure	Moderate Pressure	High Pressure	Extreme Pressure
1. Managing Workload 1	13	41	102	50	16
2. Managing Workload 2	31	205	175	71	36
3. Organizational Support & Involvement	90	138	76	40	26
4. Dealing with Patients & Relatives	55	147	158	62	22
5. Home & Work Conflicts	146	129	58	18	19
6. Confidence & Competence in Role	89	145	52	3	7



Note. Frequency of responses on NSI by nurses from all departments. NSI Sub-Scales: 1 - Managing Workload 1, 2 - Managing Workload 2, 3 - Organizational Support and Involvement, 4 - Dealing with Patients and Relatives, 5 - Home and Work Conflict, 6 - Confidence and Competence in the Role

Figure 1. Total Stress amongst NSI Sub-Scales

NSI Reliability

The consistency of the NSI was assessed using Cronbach's alpha coefficients. The overall reliability estimates for the NSI and its sub-scales were acceptable ranging from 0.83 for the Confidence and Competence in Role scale to 0.88 for the Managing Workload 2 sub-scale. Acceptable Cronbach's alpha coefficient values were based off of standard notation of ≥ 0.70 (Taber, 2017). Overall Cronbach's alpha amongst all sub-scales was 0.95, as shown in Table 3.

Table 3

Cronbach's Alpha for Each Sub-Scale

NSI Subscale	Number of Items	Cronbach's Alpha
1. Managing Workload 1	3	0.85
2. Managing Workload 2	7	0.88
3. Organizational Support & Involvement	5	0.86
4. Dealing with Patients & Relatives	6	0.85
5. Home & Work Conflicts	5	0.84
6. Confidence & Competence in Role	4	0.83

Descriptive Statistics for Instrument Sub-Scales

The calculated means for the NSI sub-scales ranged from 19.47 for the Managing Workload 2 sub-scale to 7.93 for the Confidence and Competence in Role sub-scale. The overall mean for the NSI was 74.91 ($sd = 25.47$) as shown in Table 4.

Table 4

Range of Possible Scores, Mean Scores, and Standard Deviations for NSI

NSI Subscale	Range of Possible Scores	Mean	SD
1. Managing Workload 1	3-15	9.24	2.83
2. Managing Workload 2	8-35	19.47	6.81
3. Organizational Support & Involvement	5-25	12.08	5.68
4. Dealing with Patients & Relatives	6-30	16.07	5.77
5. Home & Work Conflicts	5-25	10.12	1.02
6. Confidence & Competence in Role	4-20	7.93	3.36
Total	31-150	74.91	25.47

Occupational stress was also examined by the nursing department. Table 5 presents the data respectively. Four Tower had the highest mean score of occupational stress ($M = 101.80$, $SD 37.27$) while the 5 Heart presented the lowest mean score of occupational stress ($M = 63.11$, $SD 26.27$). A one-way ANOVA test was used to determine if the variance between the means were significantly different. The F value was calculated at 13.41 with a $p < 0.00001$. A p value of < 0.05 was used for reference as to whether there is a significant difference in stress between the different hospital units.

Table 5

Mean Scores for Occupational Stress in Relation to Hospital Unit

Unit	Mean	SD
8 Tower (n=7)	72.42	23.12
7 Tower (n = 3)	67.68	18.64
6 Tower (n=12)	79.73	30.88
6 Pavilion (n = 2)	83	42.39
5 West (n = 3)	65.32	16.28
5 Heart (n = 14)	63.11	26.27
5 North (n = 7)	71.02	25.49
4 Tower (n = 5)	101.8	37.27
4 Heart (n = 14)	71.27	19.83
3 Tower (n = 7)	90.3	33.11
Overall Score	76.55	

Summary

Two research questions were presented by the results of the study in relation to stress of nurses in the workplace. Simple proportion values were used to answer question one while question two was answered using one-way Analysis of Variance (ANOVA). The first question was: What is the overall measured stress of nurses at working within medical-surgical, telemetry, and medical-telemetry nursing departments? Overall, the nurses are not stressed in the workplace. Based on the data, a significant 1,229 out of 2,220 responses (55%) reported very little to no pressure. This was measured amongst six NSI sub-scales.

The second question asked if there are differences in levels of occupational stress amongst nurses based on their work departments in the hospital. As shown in Table 5, 4 Tower portrayed the highest mean score for occupational stress ($M = 101.80$, $SD = 37.27$), followed by 3 Tower ($M = 90.3$, $SD 33.11$). A one-way between groups analysis, ANOVA was performed to determine the influence of work unit on measured stress. There was a statistically significant difference when observing the p value < 0.5 in level of occupational stress, $F = 13.41$, $p = < 0.00001$. Therefore, the hypothesis that there is no significant difference between levels of stress in the different work departments is rejected.

CHAPTER V

DISCUSSION

The nursing role is a vital part of healthcare quality. As the patient is hospitalized, the nurse will have the most face to face time with patients throughout the hospital stay. The majority of patient tasks are carried out through the hands of a nurse; further signifying the importance of the role. Excellent nursing care requires a focused mind, competence, and confidence. All of these characteristics can be inhibited by stress. The study goal was to explore levels of stress for nurses working within medical-surgical, telemetry, and medical-telemetry nursing departments. Hopefully with the identification of stress as an inhibitor to nursing excellence, efforts can be made to minimize stress as a barrier.

Implications of Findings

It is safe to assume, stress is a consistent barrier in the profession of nursing. Although this study merely analyzed nurses working within nursing departments on medical-surgical, telemetry, and medical-telemetry departments, most nurses are stressed at some point or another regarding some aspect of the nursing role. The levels of stress are fairly constant among the different types of nursing departments. However, the more important task is to acknowledge moderate to extreme levels of stress as a barrier to the quality of nursing care as this problem arises.

As a collective view of the raw data, the stress levels among the nursing participants were moderate to extreme in several areas; however, there was no statistical significant evidence of overall stress. Out of the five greatest questions demonstrating stress as a problem, two of those questions involve time. The five greatest areas where

moderate to extreme pressure was felt were the following: Time and pressure deadlines, difficult patients, time to complete assigned duties, fluctuations in workload, and dealing with relatives. See Figures 2-6.

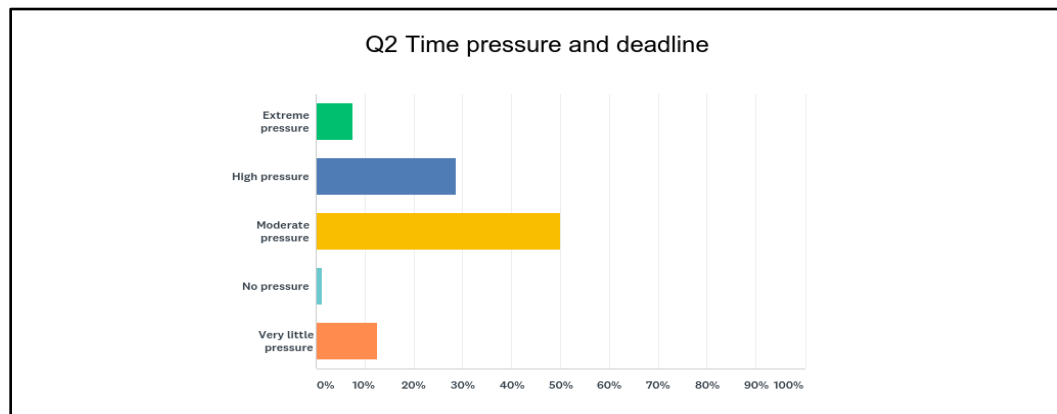


Figure 2. Frequency of Responses to Question 2 on NSI.

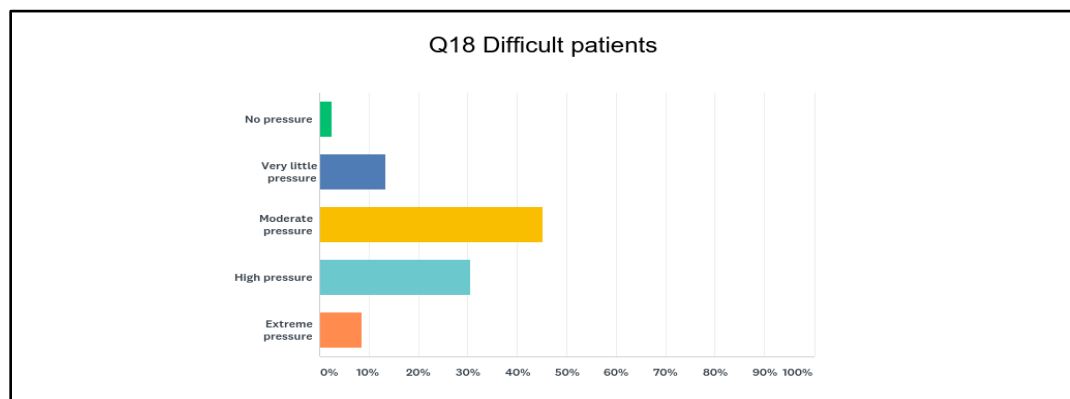


Figure 3. Frequency of Responses to Question 18 on NSI.

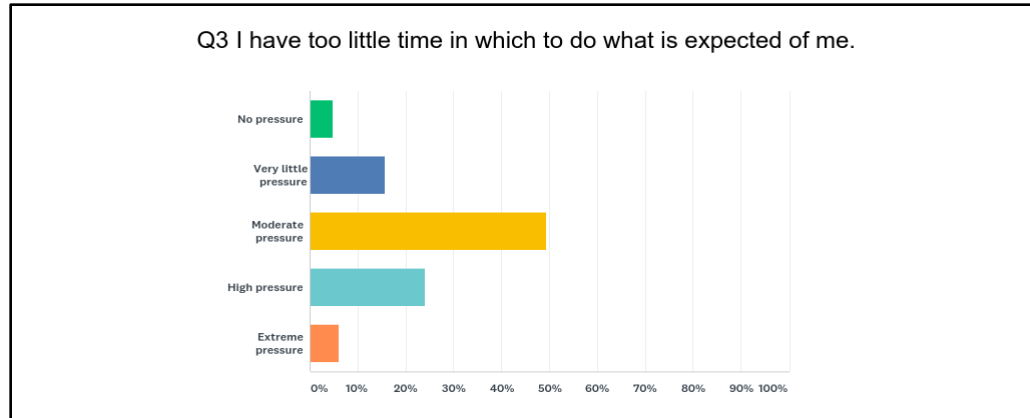


Figure 4. Frequency of Responses to Question 3 on NSI.

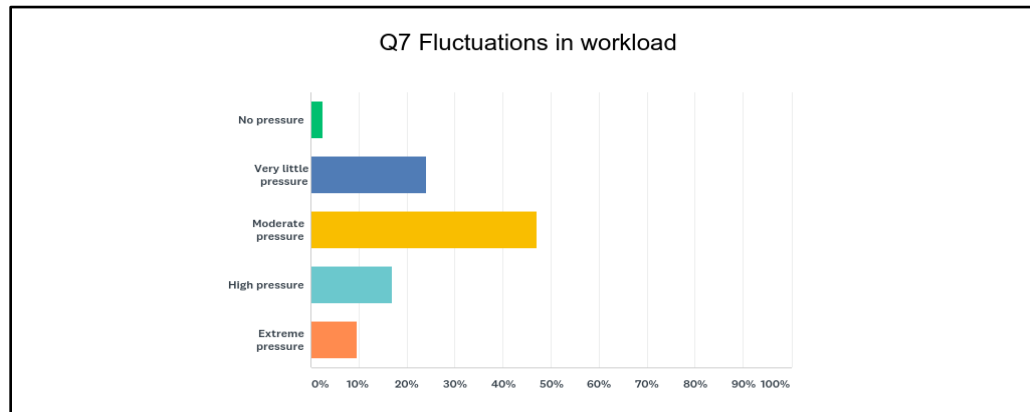


Figure 5. Frequency of Responses to Question 7 on NSI.

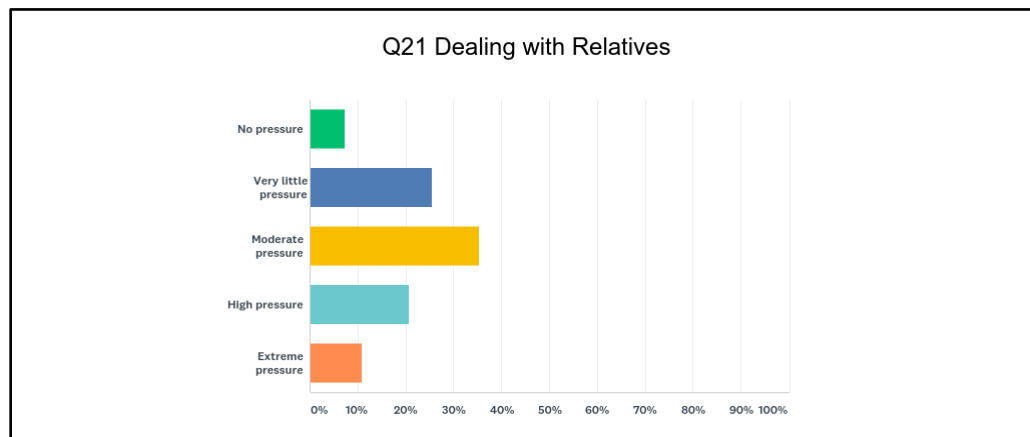


Figure 6. Frequency of Responses to Question 21 on NSI.

Application to Theoretical/Connectional Framework

The Transactional Theory on Stress and coping simply sums up the disparities within nursing. The theorists suggested that stress can represent thoughts resulting from an imbalance between demands and resources or as occurring when pressure “pressure surpasses one's conceivable capacity to survive the situation at hand (Lyon, 2012).

Nursing is a conglomeration of medical duties and task, all for the purpose of assisting a patient back to baseline in reference to health. However, working as a nurse in an acute care facility, change can occur at a moment's notice for multiple reasons. A patient's medical status can change which may prompt an emergent response. This scenario would easily cause an imbalance between demands and resources. Although in a real life situation, a rapid response team or a code blue team would be signaled to respond. These type teams kicking into action will offset some of the demands of this emergent situation; thus, relieving stress.

Another example could be a nurse becoming sick in the middle of a shift causing the other nurses to run with one less person. This situation would increase the number of patients assigned to each nurse potentially causing time delays and/or unhappy patients. In this example (same as the first), the nurse may or may not endure coping issues in response to the imbalance. However, if an imbalance presents, negative feelings may be elicited which may transition into stress. To make this scenario even more complicated, let's add one more variable. Imagine the nurse with the patient declining in health status requiring the need of immediate emergent attention. The shift is short staffed so there's an increased number of patients assigned to this nurse. This nurse would be torn between

several important needs. This scenario has a greater potential for an imbalance with resources and demands thus eliciting a stress response from the nurse.

“Stress management was developed and premised on the idea that stress is not a direct response to a stressor but rather one's resources and ability to cope mediate the stress response and are amenable to change, thus allowing stress to be controllable” (Models of Stress Management Transactional Model, 2014-2015, p. 1) Lazarus' theory recommends the identification of the factors that are central to a person controlling his/her stress, and to identify the intervention methods which effectively target these factors. In analysis of the questions within the NSI, this thesis challenged nurse leaders to view and respond by pinpointing areas in nursing potentially stealing time and increasing workload. The identification of these potential stressors has the potential limiting stress consequently creating a healthier environment.

Limitations

The tool of measure, which was the Nursing Stress Index (NSI), was recreated electronically through SurveyMonkey. This allowed the original intent of the Likert scale to be maintained. Appropriate consent and explanation of the survey tool were explained prior to taking the survey making it nearly impossible to damage or sway the results. The only possible falsification would be the participants failing to give honest feelings regarding the level of pressure felt for each question. It is the sincere confidence that the participants of the study would have appreciated the purpose of the study enough to provide honest responses to the survey. Consequently, there were no limitations affecting the validity and reliability of the findings from the study. However, there were

several questions skipped by some participants. These questions were removed to prevent the production of skewed data.

One weakness of the study, may involve the actual survey. The Nursing Stress Index (NSI) covered issues related to nursing. However, the questions were broad. For example, question four asked if the demand of others for time is a conflict. This is an important issue but it needed to be more specific. Several other questions could have been pulled from this one question providing more specific elements of pressure. Specific elements of pressure would narrow the data clarifying the true barriers of stress and potentially resolving the problem.

The survey was sent to all nurses working autonomously within 10 different nursing departments giving a potential of 300 or more participants. However, only 83 participants completed the survey. As surveys were rejected for incompleteness, this left approximately 74 surveys to conduct the experiment. The lack in numbers limited the true representation of the whole. The study would have been more beneficial with a greater participation.

Implications for Nursing

Stress as a barrier in nursing is more than marginally different than other challenges throughout the history of nursing. Stress can be a hidden catalyst to many major healthcare catastrophes. Yet at the same time, some stressors are growing pains while other stressors are simply a part of the role. As the world continues to grow and change, new challenges in nursing are un-expectantly encountered every day causing moderate to extreme levels of pressure. With this said, the problem of stress will never be totally eradicated. Nevertheless, moderate to extreme stress must be confronted and

addressed. Although attacking the indirect elements causing the stress would be beneficial; this strategy alone is not enough. Stress awareness and stress modification must be a deliberate tactic to keep nurses at the best side.

Recommendations

As an overarching strategy, the reduction of stress for bedside nursing is essential. Simply analyzing stress and burnout through employee surveying will not rectify this problem. On the contrary, anticipating this stress as a problem and proactively managing each particular element triggering the stress. With stress management as a principle strategy, major chronic problems in healthcare may be improved such as staffing shortages, patient outcomes, and patient experience.

The first recommendation involves altering patient ratios to facilitate more face to face time with each patient. Higher patient ratios for medical-surgical, telemetry, and medical-telemetry departments are due to the perception of patients being less critical and more stable. However, it is a common occurrence for patients to become unstable and critical suddenly. Nevertheless, even as the patients are stable and progressing, progression and maintenance of the patient's health status continues to be the nurse's highest priority. Allowing the nurse to decelerate will foster focus and critical thinking which will greatly impact patient outcomes.

The second and third recommendations are connected: improving team dynamics and team support. Great teamwork will always be a morale booster amongst the members of the team. A cohesive team nurtures growth, competence, confidence, and creates time and resources to accomplish the work. However, what happens when a team member doesn't want to help? Should this be allowed or should there be proactive

strategies to avoid minimal teamwork? In addition, what type of team is appropriate for this nursing care area? For example, trauma nursing departments tend to be more chaotic and unpredictable. Nurse leaders should assess which personalities would foster the most cohesive and positive relationships in this type environment; and conversely, which personalities would be more challenged. Above all, what is the formula to create the type of nurse needed for this area?

Because stress will never depart from nursing, managing and coping with stress is very important. This fourth recommendation must be preemptive by providing specific tactics to achieve rational resolutions for each challenge before nurse burnout becomes an epidemic. Furthermore, actual coaching for stressful situations should be ongoing and start with new graduate nurses as early as possible. Coaching sessions may include conflict resolution, communication skills, and time management. One favorable example of coping with stress involves new patient arrivals. New patients for nurses increase workload and bring about uncertainty; thus, potentially triggering stress. This tactic allows the patient to receive the onset of care in the nursing department efficiently and the assigned nurse can continue scheduled routines with minimal interruption.

Conclusion

It was a pleasant surprise to find stress as an insignificant problem and an equal issue among the different departments. However, there continues to be a need to monitor and respond to the problems causing stress. Today's nurses have many options and will not remain in an occupation where moderate to extreme levels of stress are on a continuum. Although the pioneer nurses courageously created and paved the way, unnecessary pressures were perceived to have been endured. The younger generations

are not made the same and will not remain in a consistent overbearing fight for humanity. As previously mentioned, stress will remain in some form due to the nature of the profession. As the leaders of the profession toy with the question of should or should not this cycle be broken, the more difficult question is how. Nonetheless, it is owed to the profession to try. This attempt will not be without cost or pain but as the cycle is broken there will be a better way. Perhaps something never dreamed as possible; a discovery of freedom and peace in the ability to practice in the beautiful profession of nursing.

References

- Aiken, L., Sloan, D., Bruyneel, L., Van den Heede, K., Griffiths, P., Busse, R., Diomidous, M....& Sermeus, W. (2014). Nurse staffing and education and hospital mortality in nine European countries: A retrospective observational study. Retrieved from [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(13\)62631-8/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)62631-8/fulltext)
- Arkin, N., Lee, P. H., McDonald, K., & Hernandez-Boussard, T. (2014). The association of nurse-to-patient ratio with mortality and preventable complications following aortic valve replacement. *Journal of Cardiac Surgery*, 29(2), 141-148. doi:10.1111/jocs.12284
- Borhani, F., Abbaszadeh, A., Nakhaee, N., & Roshanzadeh, M. (2014). The relations between moral distress, professional stress, and intent to stay in the nursing profession. *Journal of Medical Ethics and History of Medicine*, 7(3), 1-8. doi:10.1097/NCI.00000000083
- Cho, S., June, K., Kim, Y. M., Cho, Y. A., Yoo, C., Yun, S., & Sung, Y. H. (2009). Nurse staffing, quality of nursing care and nurse job outcomes in intensive care units. *Journal of Clinical Nursing*, 18(12), 1729-1737. doi:10.1111/j.1365-2702.2008.02721.
- Galdikiene, N., Asikainen, P., & Balciunas, S. (2013). Do nurses feel stressed? A perspective from primary health care. *Nursing and Health Sciences*, 16(3), 327-334. doi:10.1111/nhs.12108
- Garretson, S. (2004). Nurse to patient ratios in American health care. *Nursing Standards*, 19(14), 33-37. <http://dx.doi.org/10.7748/ns2004.12.19.14.33.c3776>

- Gelsema, T., Doef, M. V., Janssen, M., Akerboom, S., & Verhoeven, C. (2006). A longitudinal study of job stress in the nursing profession: Causes and consequences. *Journal of Nursing Management*, 14(4), 289-299. doi:10.1111/j.1365-2934.2006.00635.x
- Harris, P. (1989). The nurse stress index. *Work and Stress*, 3(4), 335-346.
- Hinno, S., Partanen, P., & Vehviläinen-Julkunen, K. (2011). Nursing activities, nurse staffing and adverse patient outcomes as perceived by hospital nurses. *Journal of Clinical Nursing*, 21(11/12), 1584-1593. doi:10.1111/j.1365-2702.2011.03956.x
- Jenkins, R., & Elliott, P. (2004). Stressors, burnout and social support: Nurses in acute mental health settings. *Nursing and Health Care Management and Policy*, 48(6), 622-631. doi:10.1111/j.1365-2648.2004.03240
- Lauvrud, C., Nonstad, K., & Palmstierna, T. (2009). Occurrence of post traumatic stress symptoms and their relationship to professional quality of life (ProQOL) in nursing staff at a forensic psychiatric security unit: A cross sectional study. *Health and Quality Life Outcomes*, 7(1) doi:10.1186/1477-7525-7-31
- Lyon, B. L. (2012). Stress, coping and health: A conceptual overview. In V. Rice, *Handbook of stress, coping and health: Implications for research* (pp. 2-20). Los Angeles, CA: Sage.
- Martin, C. J. (2015). The effects of nurse staffing on quality of care. *MEDSURG Nursing*, 4-6. Retrieved from <http://go.galegroup.com/ps/anonymous?id=GALE%7CA411470286&sid=googleScholar&v=2.1&it=r&linkaccess=fulltext&issn=10920811&p=AONE&sw=w&authCount=1&isAnonymousEntry=true>

Models of Stress Management Transactional Model. (2014-2015). Retrieved

http://academlib.com/2885/management/models_stress_management_transactional_mode

Mosdeghrad, A. M. (2013). Occupational stress and turnover intention: Implication for nursing management. *International Journal of Health Policy and Management*, 1(2), 169-176. doi:10.15171/ijhpm.2013.30

Nickitas, D. (2014). Investing in nursing: Good for patients, good for business, and good for the bottom Line. *Nursing Economics*, 32(2), 54-69. Retrieved from https://www.nursingconomics.net/necfiles/news/MA_14_Nickitas.pdf

Rushto, C. H., Schroeder, K., & Donohue, P. (2015, September). Burnout and resilience among nurses practicing in high intensity settings. *American Journal of Critical Care*, 24(5), 417--420. doi: <http://dx.doi.org/10.4037/ajcc2015291>

Spector, P. (2002, August 4). Occupational stress and employee control. *Directions in Psychological Science*, 11(4), 133-136.

Stress. (n.d.). Retrieved from

https://www.google.com/search?hl=en&source=hp&q=what+is+stress&gbv=2&oeq=what+is+stress&gs_l=heirloom-hp.3..0l10.3463.11029.0.12714.15.11.0.4.4.0.63.532.11.11.0.msedr...0...1ac.1.34.heirloom-hp..0.15.595.vyv0MFZgn3g

The Stress Management Society. (2015). *What is stress*. Retrieved from <http://www.stress.org.uk/what-is-stress/>

Taber, K.S. Res Sci Educ (2017). <https://doi.org/10.1007/s11165-016-9602-2>.

Tervo-Heikkinen, T., Partanen, P., Aalto, P., & Vehviläinen, K. (2008). Patient satisfaction as a positive nursing outcome. *Journal of Nursing*, 23(1), 58-65.

Retrieved from

https://www.researchgate.net/publication/5570076_Patient_Satisfaction_as_a_Positive_Nursing_Outcome

Appendix A

Nursing Stress Index Scale

1. Which Nursing department do you work in?
 - ☐ 8 Tower
 - ☐ 7 Tower
 - ☐ 6 Tower
 - ☐ 4 West
 - ☐ 5 West
 - ☐ 5 North
 - ☐ 4 Heat
 - ☐ 5 Heart

The Nurse Stress Index						
Harris, P. (1989). The nurse stress index. <i>Work and Stress</i> , 3(4), 335-346.						
<p>Instructions: Please rate by circling the number that corresponds to the amount of pressure you feel from each item.</p> <p>1. No pressure</p> <p>2. Very little pressure</p> <p>3. Moderate pressure</p> <p>4. High pressure</p> <p>5. Extreme pressure</p>						
	Items	Rate				
1.	Time pressures and deadlines	1	2	3	4	5
2.	I have too little time in which to do what is expected of me	1	2	3	4	5
3.	The demands of others for my time at work are in conflict	1	2	3	4	5
4.	I spend my time 'fighting fires' rather than working to a plan	1	2	3	4	5
5.	Trivial tasks interfere with my professional role	1	2	3	4	5
6.	Fluctuations in workload	1	2	3	4	5
7.	Management expects me to interrupt my work for new priorities	1	2	3	4	5
8.	Deciding priorities	1	2	3	4	5
9.	My nursing and administrative roles conflict	1	2	3	4	5
10.	Shortage of essential resources	1	2	3	4	5
11.	Decisions or changes which affect me are made 'above', without my knowledge or involvement	1	2	3	4	5
12.	Management misunderstands the real needs of my department	1	2	3	4	5
13.	Lack of support from senior staff	1	2	3	4	5
14.	I only get feedback when my performance is unsatisfactory	1	2	3	4	5
15.	Relationships with superiors	1	2	3	4	5

16.	Difficulty in dealing with aggressive people	1	2	3	4	5
17.	Difficult patients	1	2	3	4	5
18.	Involvement with life and death situations	1	2	3	4	5
19.	Bereavement counseling	1	2	3	4	5
20.	Dealing with relatives	1	2	3	4	5
21.	Over-emotional involvement	1	2	3	4	5
22.	Job versus home demands	1	2	3	4	5
23.	My supervisors do not appreciate my home pressures	1	2	3	4	5
24.	Domestic/family demands inhibit promotion	1	2	3	4	5
25.	I need to absent myself from work to cope with domestic problems	1	2	3	4	5
26.	Bringing about change in staff/organization	1	2	3	4	5
27.	Tasks outside of my competence	1	2	3	4	5
28.	Coping with new technology	1	2	3	4	5
29.	Lack of specialized training for present task	1	2	3	4	5
30.	Uncertainty about the degree or area of my responsibility	1	2	3	4	5

Appendix B

Permission to Use Research Instrument



Butler, Andrea <arbutler@srhs.com>

Thursday, July 23, 2015 at 4:10 PM

To: ○ Tracy Arnold

Dear Andrea Butler,

Thank you for your correspondence requesting permission to reference the following material from our Journal in your printed thesis and to be posted in your university's repository.

The nurse stress index – Working & Stress: An International Journal of Work Health & Organisations, volume 3, Issue 4, PP 335-346 – Author – Philip E. Harris.

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Appendix C

Informed Consent

Title of Study:

Exploring Nurse Stress Levels

Researcher:

You are being asked to participate in a research study being conducted by Andrea Butler, a Master of Science in Nursing student at Gardner-Webb University.

Purpose:

The purpose of this study is to explore the levels of occupational stress of nurses working on medical-surgical units, medical-telemetry units, and telemetry units.

Procedure:

You are being asked to identify your unit of practice and then complete the Nurse Stress Index through SurveyMonkey. This is a 30-item survey, with each item ranked on a 5-point Likert scale.

Time Required:

It is anticipated that this research study will require 15 minutes of your time. Once you have completed the survey, you will have no further obligations.

Voluntary Participation:

Participation in this research study is voluntary. You have the right to withdraw from the research study at any time without penalty. You also have the right to refuse to answer any question(s) for any reason without penalty.

Confidentiality:

Your participation and responses to the survey questions will be anonymous and confidential. All answers will be submitted to an electronic database. This information will be stored on the researcher's password protected personal computer. The collected data and results will be retained by the Hunt School of Nursing for three years after completion of the study and then destroyed. This information may also be shared with members of the leadership team at Spartanburg Regional Medical Center.

Risks:

There are minimal risks associated with this study; however, should you experience any type of distress from completing this survey, please contact the Employee Assistance Program at 864-596-2253.

Benefits:

There are no direct benefits associated with participation in this study. The study may help us to better understand stress levels of nurses.

Payments:

You will receive no payment for participating in this study.

If you have questions about the research study, contact the following individuals:

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Consent to Participate:

By completing this survey, you are voluntarily consenting to participate in this research study. If you choose not to participate in this study, please close the browser.